**REMARKS**

Claims 6-10 are pending in the application and are rejected only under 35 U.S.C. 103(a).

**Claims Rejections 35 U.S.C. 103**

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saita** (US 6,719,565) in view of **Hamburg** (US 6,028,583) and further in view of **Fertig** (US 2004/0239689) and still further in view of **Alpher** (US 5,552,805).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saita** (US 6,719,565) in view of **Hamburg** (US 6,028,583) and further in view of **Fertig** (US 2004/0239689) and still further in view of **Alpher** (US 5,552,805) and still in further view of **Lei** (US 2002/0054039).

The Examiner's rejections have been carefully considered.

Saita teaches a method for building a simulated image in which a subject's hair is changed to a desired color and to accurately suggest the hair dye needed to achieve the desired color. The method involves storing a digital image of the subject, identifying the hair-containing portions of the image, and showing multiple images on a single screen in which the color of the hair containing portions of the image are changed.

Fertig teaches a method for a hair color consultation by continuously recording images of a person using a video camera and transferring the images to a computer in real time in a continuous image sequence. The images are modified in real time to change the hair color in the images of the person (abstract). The color of the hair in the video is changed continuously and in a cycle in accordance with a color wheel and not stored data corresponding to a dye or dyes. Fertig teaches that still images look static

and unnatural and that this is a disadvantage with regard to hair color consultations ([0003]). The advantage of dynamic video images over static images is clearly expressed in paragraph [0005]. Fertig does not teach any correlation between colors seen in the modified video and any prepared dye or combination of dyes.

Hamburg teaches a general method and computer program for composing a set of ordered image layers in which a compound layer contains a plurality of imaged layers. A compound layer contains a plurality of image layers and has a compound layer effect. Any image layers under the compound layer are composited to generate a first intermediate image, the first intermediate image is composited with each image layer in the compound layer to generate a second intermediate image, the first intermediate image is composited with the second intermediate image according to the compound layer effect to generate a third intermediate image, and the third intermediate image is composited with any remaining layers to generate a final image (abstract). The method is a graphical image manipulation system for compositing multiple graphical images in roughly the same way as Adobe Photoshop (column 1, lines 5-19).

Alpher teaches a method for displaying blended colors on a display by selecting two or more base colors to be blended, displaying the base colors at edge portions of a geometric display region having a shape based upon the number of colors to be blended (abstract). The method is taught only in the context of computer graphics and Alpher makes no mention of dyes, hair colors, or any application of displaying blended colors to any process involving chemical dyes, paints.

Lei teaches an image modeling method in which first and second image data sets comprising a head are retrieved, processing the first retrieved image data by a three-dimensional image processing technique that produces three-dimensional image data, and processing the second retrieved image data set to become two-dimensional planar image data (abstract, claim 1). The object of the Lei invention is to display an image of a head in 3D while displaying the rest of a corresponding body in 2D ([0002]).

According to the rejections of record, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the cited references to produce a system for hair color simulation system for simulating a hair coloring procedure in which different hair color preparations corresponding to different hair colors are mixed.

1. Applicant argues that the combination of the cited references would not have been obvious and the rejections cite portions of the cited references that are taken out of context.

Applicant notes that the rejection of claims 6-9 relies on the combination of all four of Saita, Hamburg, Fertig, and Alpher. Accordingly, all of the assertions of obviousness made in the rejection must be valid in order for the rejection to stand. Even if a single assertion of obviousness made in the rejection is incorrect, the rejections of claims 6-9 and 10 must be withdrawn.

The rejection assert that it would have been obvious to modify the Saita method for building a simulated image with the graphical image manipulation system of Hamburg in order to combine the color of each pixel in the different layers thereby generating the required composited color. The rejection asserts that the layer manipulation taught by Hamburg gives flexibility for adjusting transparency information required for the desired color and helps the user to blend any number of colors. The rejection does not assert or support that the combination of Saita and Humburg teaches or suggests a particular number or arrangement of the layers or their contents (i.e. what they display), as recited in present claim 1.

The rejection further asserts that, after modifying Siata according to Hamburg, it would have been obvious further modify that combination according to Fertig by configuring the display to have multiple windows to display the colors to be selected in one pane and the hair of the subject in a different pane so that the user would easily observe his/her hair image while choosing the preferred color combinations. One

wishing to modify Saita would not have looked to Fertig because Fertig teaches that still images look static and unnatural and that this is a disadvantage with regard to hair color consultations ([0003]). The advantage of dynamic video images over static images is clearly expressed in paragraph [0005]. Contrary to the assertions made in the rejection, Fertig does not teach any correlation between colors seen in the modified video and any prepared dye or combination of dyes.

The rejection further asserts that, after modifying Siata according to Hamburg and modifying that combination according to Fertig, it would have been obvious to still further modify the combination of Saita, Hamburg, and Fertig according to Alpher to selectively blend two or more colors by adjusting the percentage contribution of each base color. Alpher, however, makes no reference to dyes or correlations between colors presented on a computer display and dyes, paints, or pigments. There is no hint in Alpher that the computational method of blending colors has any application other than to create colors on a computer monitor. Furthermore, the rejection ignores the geometric requirements of the blending taught by Alpher, which for blending two colors would produce a color gradient and not a single color over the area of hair cover on an image of a subject's head. It is not clear from the prior art or the rejection what would have motivated one to ignore the gradient taught by Alpher and to select a single point of color on the Alpher gradient to be applied to the hair color.

2. Applicant argues that the presently claimed invention is not unpatentable over the combination of the cited references because the cited references, neither alone nor in combination, teach or suggest all of the limitations recited in claim 1.

The rejection asserts that Fertig teaches a hair color preparation data storage section recording RGB values of hair colors of hair color preparations (as recited in present claim 1) in paragraph 13, lines 12-16. The cited passage, however, makes no mention of recording the colors or RGB values of hair color preparations, dyes, or pigments of any kind. In support of Applicant's argument, the cited passage is reproduced below:

> device **31**, an automatic picture preparation and picture processing is performed, in which the computer **13** identifies a hair region **32** of the person **11** by segmentation, which means a recognition and separation of relevant picture regions, and also identifies the natural hair color **33**, changes the hair color **33** of this hair region **32** in accordance with predetermined specifications, and displays the altered indi-

The rejection asserts that Fertig teaches a second input section for receiving an input of choices of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section in paragraph 17, lines 3-11. As can be seen in the paragraph reproduced below, there is no reference to any kind of hair color preparation, only to a color palette, which does not correspond to any hair color preparations, dyes or pigments.

> [**0017**] Depending on where it is to be used (salon/retail), besides the person **11** an advisor, for instance a hairdresser, can also be present. In that case, it is appropriate for the hairdresser to have his own, second screen **15** or touch screen **23** available, for operating the program and for initialization. On this second screen **15** or touch screen **23**, in addition to the camera image, important control information can be shown, such as the color palette **47 (FIG. 3)** of the target hair colors (desired color **36**), so that all that has to be displayed on the first screen **14** or touch screen **22** for the person **11** is the outcome of the simulation. The touch screen **22, 23** has the advantage that additional input devices are unnecessary, since appropriate control menus or selection areas are activated directly by touching them on the surface of the touch screen with a finger or stylus.

The rejection asserts that FIG. 3, label 47, in Fertig teaches displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section. Label 47 in Fertig, however, is clearly indicated as a color palette and there is no teaching in Fertig that the color palette

contains colors that correspond to specific hair color preparations. Furthermore, there is no mention in Fertig or any other cited reference to a fifth layer displaying a selected hair color without transparency.

The rejection asserts that Alpher teaches a method and system for displaying blended colors in which different color preparations are mixed in a mixing ratio of the selected two color preparations in column 1, lines 5-14. As can be seen in the referenced paragraph reproduced below, there is no mention in Alpher of color preparations (i.e. hair colorants or hair dyes) at all. The methods taught by Alpher are limited only to colors on a computer monitor and have nothing to do with any corresponding hair color preparations.

There is no teaching or suggestion in any of the cited references for arranging first through fifth image displays are layered in the manner specified in claim 1. References to layers of images in the rejection are based solely on Hamburg and the rejection provides no reasoned statements whatsoever with regard to how one would have combined the cited references to arrive at the arrangement of superimposed layers specified in present claim 1.

In summary, the cited references, individually and in combination, fail to teach or suggest:

a hair color preparation data storage section recording RGB values of hair colors of hair color preparations;

a second input section for receiving an input of choices of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section;

displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section;

displaying blended colors in which different color preparations are mixed in a mixing ratio of the selected two color preparations; and

a first image displaying section displaying the first hair line with a predetermined transparency on the first layer of the base screen according to the image data recorded in the first hair line data storage section; a second image displaying section retrieving the RGB values of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section; a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with respective transparencies corresponding to the selected mixing ratio thereof on the third layer and the fourth layer of the base screen respectively based on the input received at the second input section; a fourth image displaying section retrieving the RGB values of the selected hair color from the hair color data storage section and displaying the selected hair color with a predetermined transparency on the second layer of the base screen based on the input received at the first input section; a fifth image data displaying section displaying the second hair line with a predetermined transparency on the intermediate layer of the base screen according to the image data recorded in the second hair line data storage section; and wherein the first layer, the intermediate layer, the second layer, the third layer, the fourth layer, and the fifth layer of the base screen are superimposed on one another so as to display a resultant simulated hair color that is produced when the first hair line, the second hair line, the colors of the hair color preparations and the original hair color are displayed on the base screen with the respective transparencies and superimposed on each other;

3. Claims 6-10 are not unpatentable over the combination of cited references because any reasonable combination of Saita and Fertig would not have led to the presently claimed invention. Saita teaches a method for building simulated still images for hair color consultation. Fertig teaches that still images look static and unnatural and that this is a disadvantage with regard to hair color consultations ([0003]). The advantage of dynamic video images over static images is clearly expressed in paragraph [0005]. Consequently, one of ordinary skill in the art, at the time the

invention was made, would reasonably have modified Saita to use real time video rather than still images. The presently claimed invention does not use real time video.

In view of the foregoing arguments, Applicant respectfully requests that rejections of claims 6-10 under 35 U.S.C. 103(a) be withdrawn.

**Conclusion**

The application is believed to be in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

Michael J. Striker
Attorney for Applicant
Reg. No.: 27233
103 East Neck Road
Huntington, New York 11743
631-549-4700